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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,862	05/09/2005	Konrad Kuerzinger	21590 US-pd/d	4697

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ROCHE DIAGNOSTICS OPERATIONS INC.  
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Indianapolis, IN 46250-0457

EXAMINER

LANGEL, WAYNE A

ART UNIT

PAPER NUMBER

1793

NOTIFICATION DATE

DELIVERY MODE

02/11/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

Application No.

10/506,862

Applicant(s)

KUERZINGER ET AL.

Examiner

Wayne Langel

Art Unit

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2009.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 13-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-31 and 33-39 is/are allowed.
- 6) ☒ Claim(s) 32 and 40-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-845)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 40-49 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over applicants' admitted prior art. Applicants admit in the second paragraph on page 4 of the specification that fluorine-containing coatings are known but that, due to the rapid gelling during the particle production with fluoroalkyltrialkoxysilanes, no fluorine-containing silicate particles had yet been synthesized. Applicants' specification also discloses in the third paragraph on page 5 that incorporation into the Stober particles is non-covalent when the halogen-containing target molecule is not silanized. However claim 13 does not exclude the halogen-containing target molecule from being a silanized molecule. It would not be expected that the metal oxide particle produced by the process recited in claim 13

would be any different from that formed by the process disclosed in the second paragraph on page 4 of the specification when the halogen-containing target molecule is silanized. It would not be expected that hydrophobic and oleophobic target molecules could be non-covalently incorporated into the particles when employing a silanized halogen-containing target molecule in the sol-gel process.

Claim 40 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over either Karvinen or Michalczyk et al. No distinction is seen between the metal oxide particles disclosed by Karvinen and Michalczyk et al, and that recited in claim 13.

Claim 40 is rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over either Horne et al or Murayama et al. No distinction is seen between the metal oxide particles disclosed by Horne et al and Murayama et al, and that recited in claim 13.

Claims 41-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karvinen or Michalczyk et al or Horne et al or Murayama et al as applied to claim 40 above, and further in view of applicants' admitted prior art. It would be further obvious from applicants' admitted prior art (paragraphs [0002] through [0004] of the specification) to couple a biomolecule to the metal oxide particles of Karvinen or Michalczyk et al or Horne et al or Murayama et al and to employ the particles as the other recited conventional uses.

Applicants' argument, that none of the references disclose metal oxide particles produced by applying a polyhalogenated metal alkylalkoxy compound together with a

metal oxide precursor in a sol-gel process, is not convincing, since it is not clear that a metal oxide particle produced according to the process recited in claim 13 would necessarily be different from the metal oxide formed according to the processes of the references. Applicants admit in the second paragraph on page 4 of the specification that fluorine-containing coatings are known but that, due to the rapid gelling during the particle production with fluoroalkyltrialkoxysilanes, no fluorine-containing silicate particles had yet been synthesized. Applicants' specification also discloses in the third paragraph on page 5 that incorporation into the Stober particles is non-covalent when the halogen-containing target molecule is not silanized. However claim 13 does not exclude the halogen-containing target molecule from being a silanized molecule. It would not be expected that the metal oxide particle produced by the process recited in claim 13 would be any different from that formed by the process disclosed in the second paragraph on page 4 of the specification when the halogen-containing target molecule is silanized. It would not be expected that hydrophobic and oleophobic target molecules could be non-covalently incorporated into the particles when employing a silanized halogen-containing target molecule in the sol-gel process.

Claim 32 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The recitation of "selected from...or" is improper Markush terminology.

Claims 1-31 and 33-39 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wayne Langel whose telephone number is 571-272-1353. The examiner can normally be reached on Monday through Friday, 8 am - 3:30 pm Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Wayne Langel/  
Primary Examiner, Art Unit 1793

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*Application Number*



Application/Control No.

10/506,862

Examiner

Wayne Langel

Applicant(s)/Patent under  
Reexamination

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